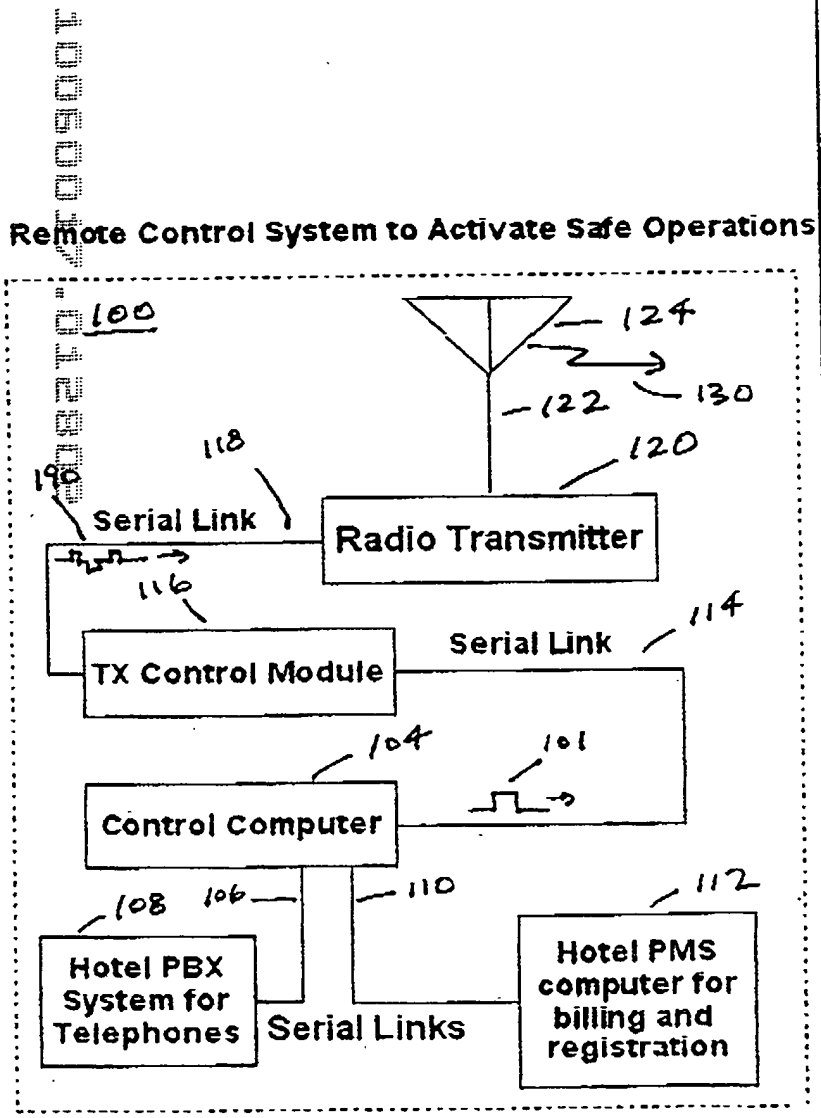
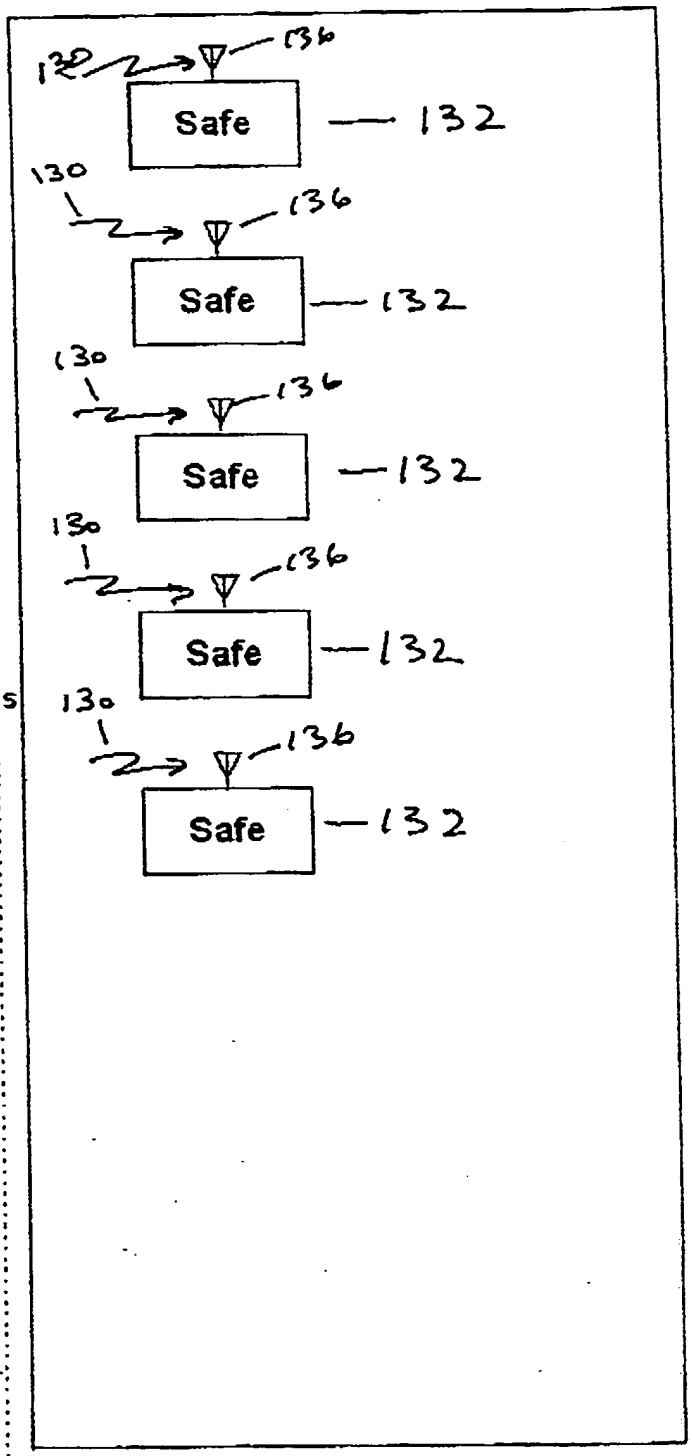
FIG. 1


Remote Control System to Activate Safe Operations
100
124
122
130
118
120
190
Serial Link
Radio Transmitter
116
114
Serial Link
TX Control Module
104
101
Control Computer
108
106
110
112
Hotel PBX System for Telephones
Serial Links
Hotel PMS computer for billing and registration


Hotel with safes on each floor
136
130
Safe
132
Safe
132
Safe
132
Safe
132
Safe
132

20821D" 2T009001

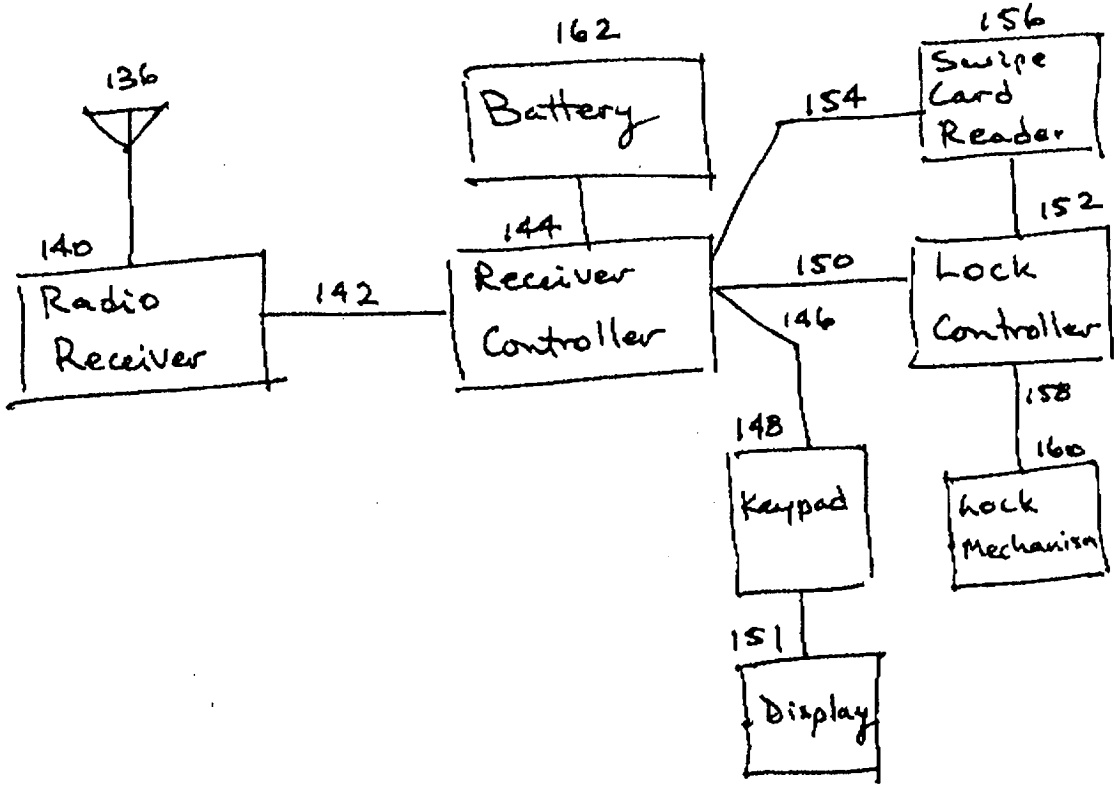


FIG. 2

400

FIG. 3

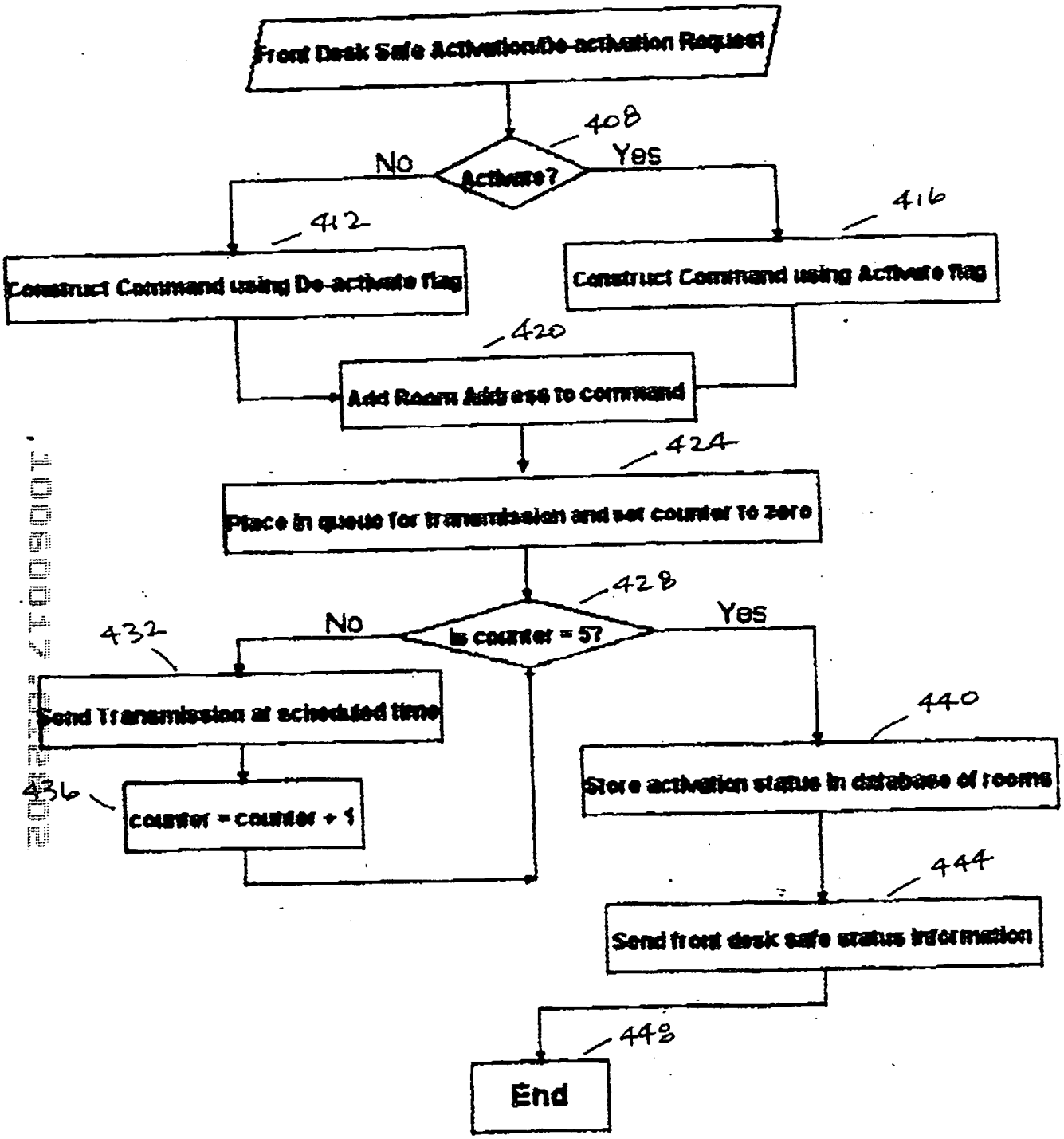
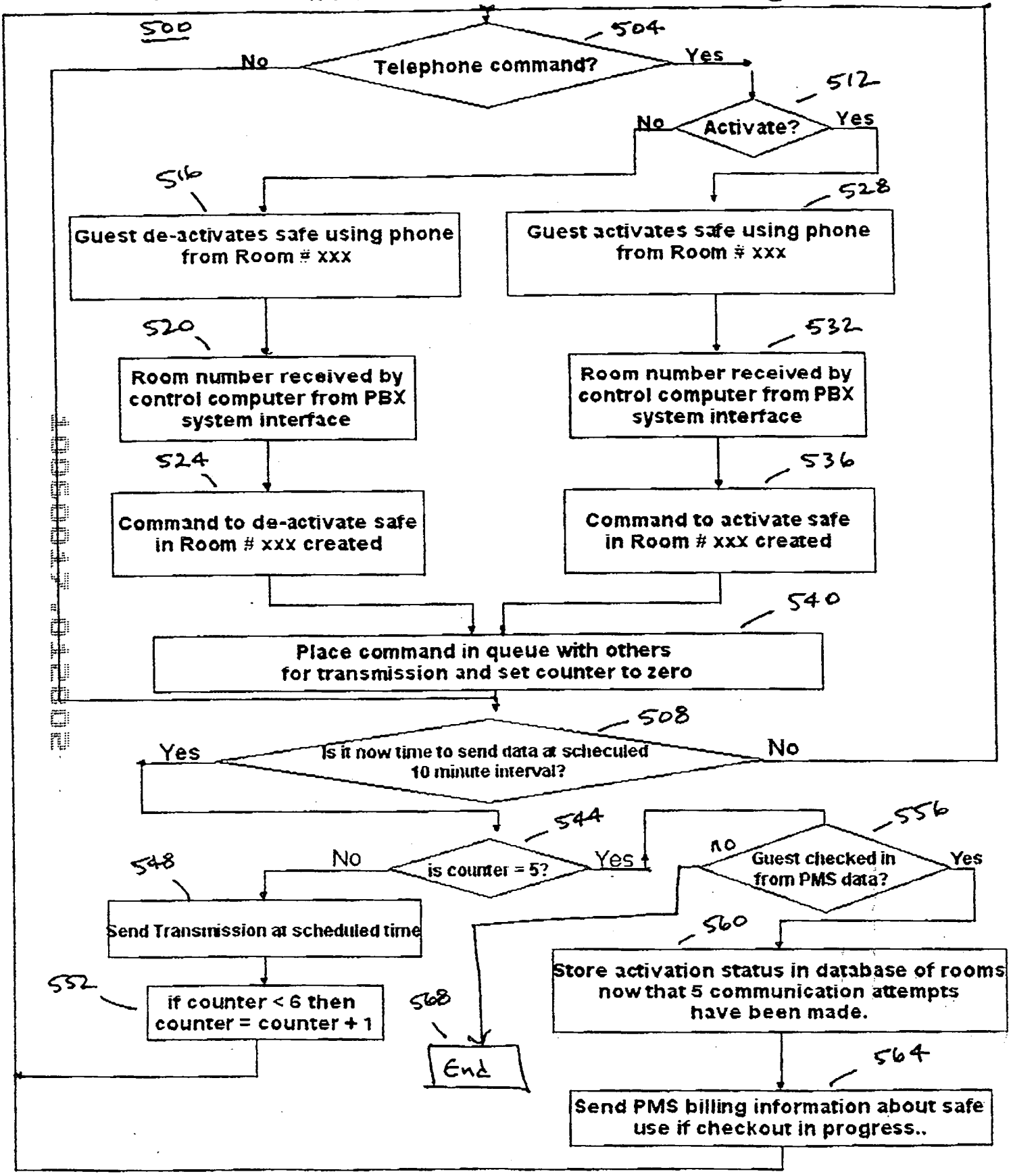

404
Front Desk Safe Activation/De-activation Request
408
Activate?
No
Yes
412
Construct Command using De-activate flag
416
Construct Command using Activate flag
420
Add Room Address to command
424
Place in queue for transmission and set counter to zero
428
Is counter = 5?
No
Yes
432
Send Transmission at scheduled time
436
counter = counter + 1
440
Store activation status in database of rooms
444
Send front desk safe status information
448
End

FIG. 4 Safe Activation Software Design



Docket: 2005-0402

Secure Automatic Opening of Safe Algorithm

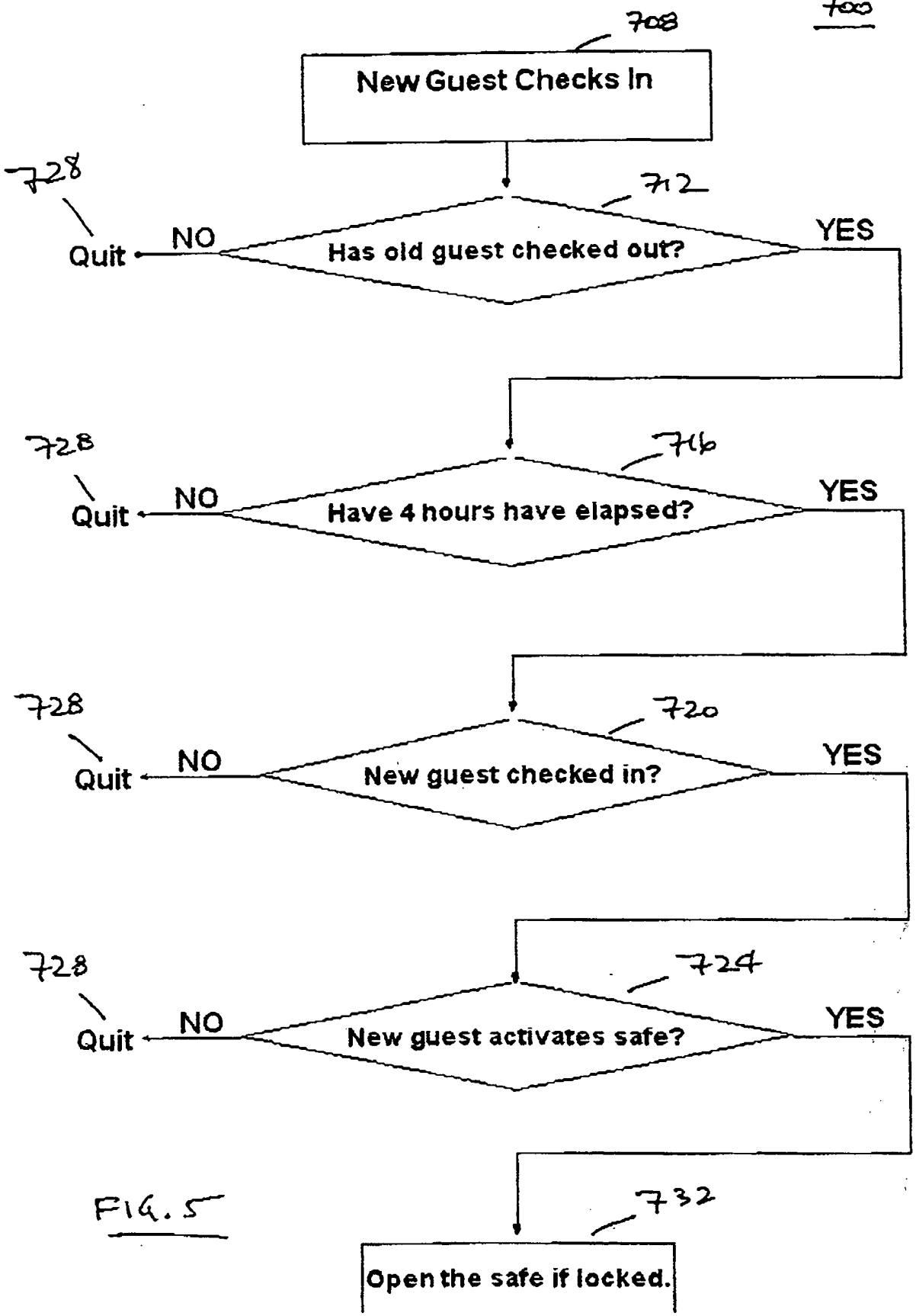


FIG. 5

20827D "2700900T

200

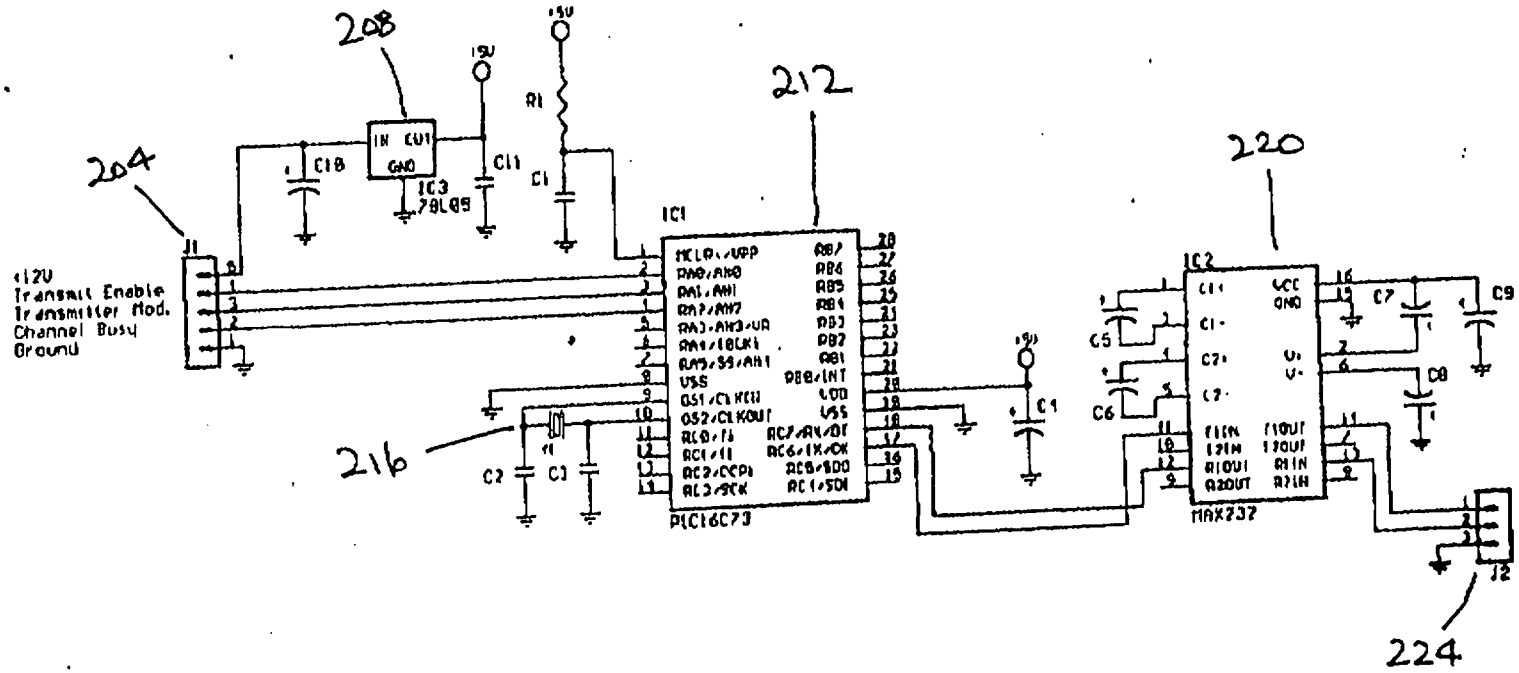


FIG. 6

20820 '2T009001

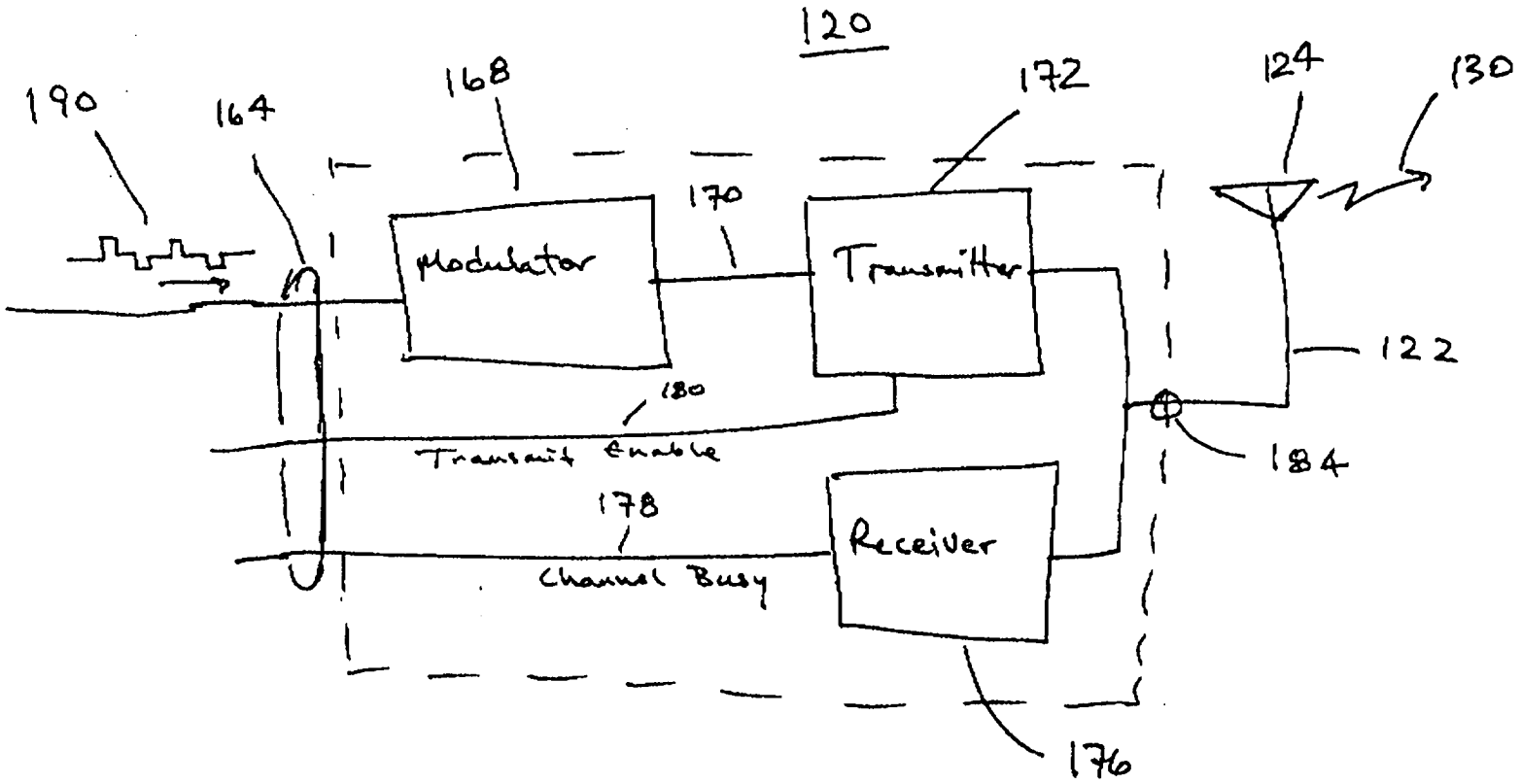


FIG. 7

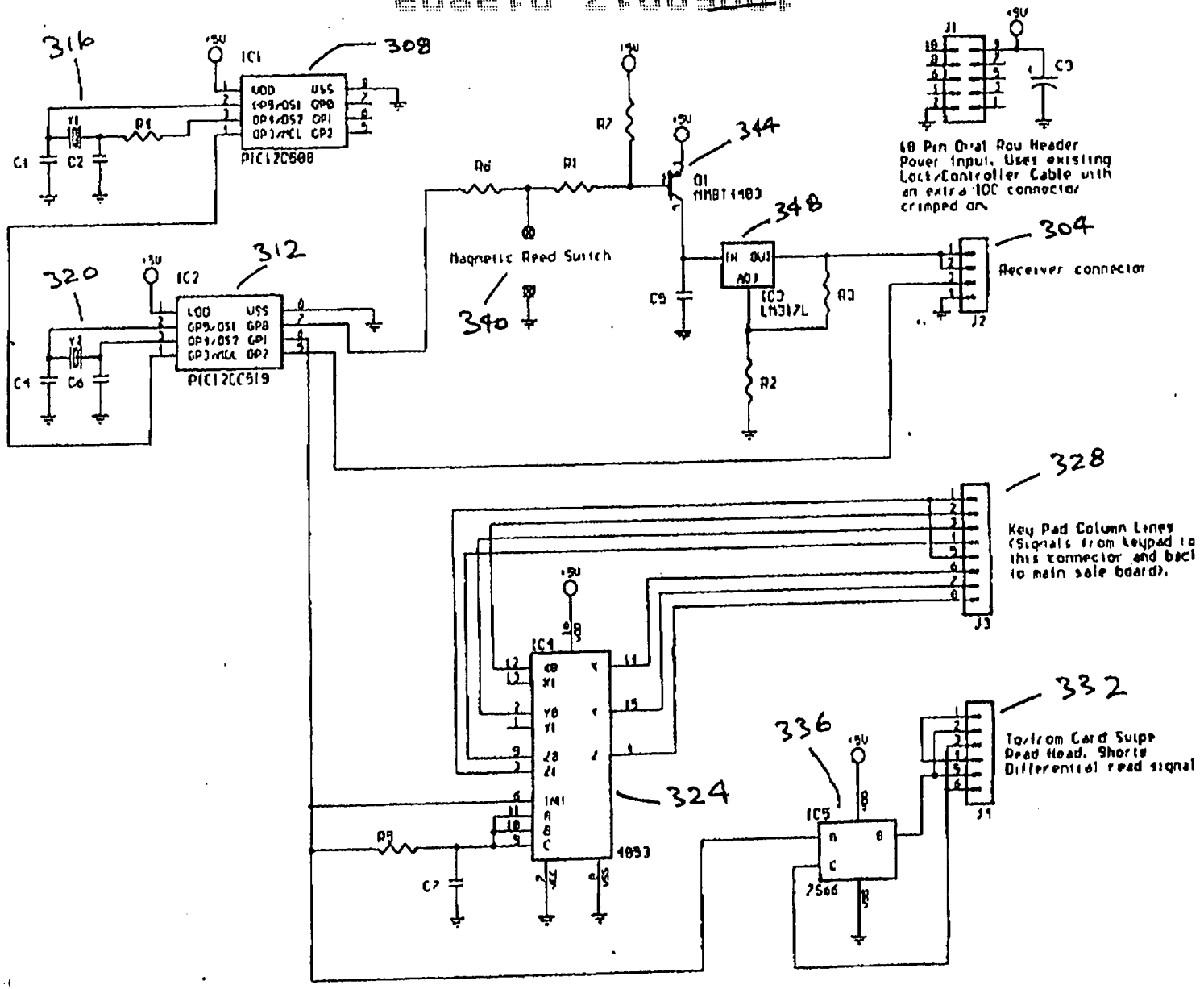

316
308
PIC12C508
R4
R1
R7
344
Q1
MMBT4403
348
Magnetic Reed Switch
340
304
Receiver connector
J2
LM317L
R3
R2
C5
320
312
PIC12C519
C4
C6
328
Key Pad Column Lines
(Signals from keypad to
this connector and back
to main sale board).
J3
324
4053
R5
C7
336
7566
332
To/from Card Swipe
Read Head. Shorts
Differential read signal
J1
C3
68 Pin Dual Row Header
Power input. Uses existing
Lock/Controller Cable with
an extra IDC connector
crimped on

FIG. 8

Receiver Firmware

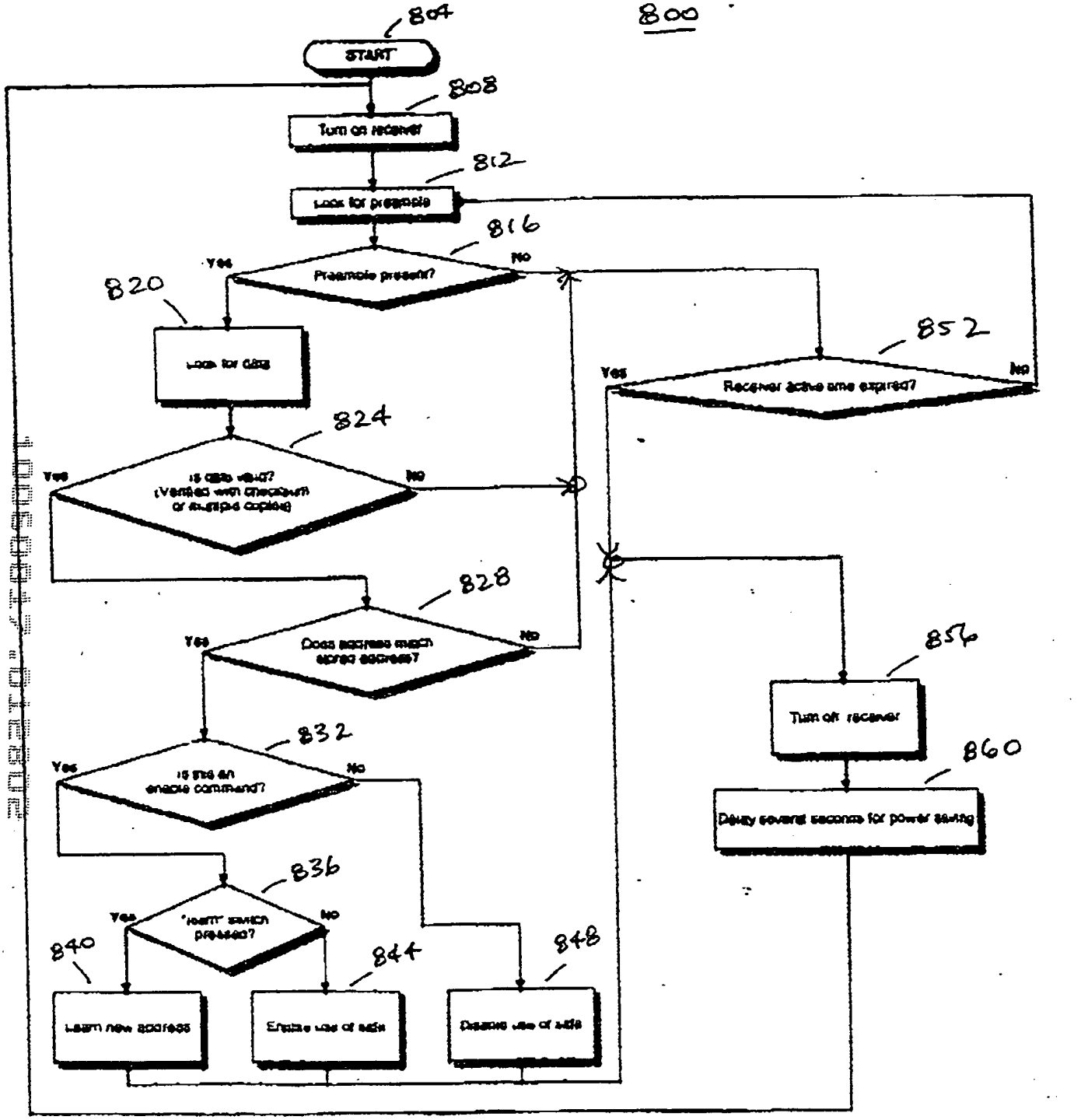


FIG. 9

Full Building Scan Technique for Safe Battery Optimizatio

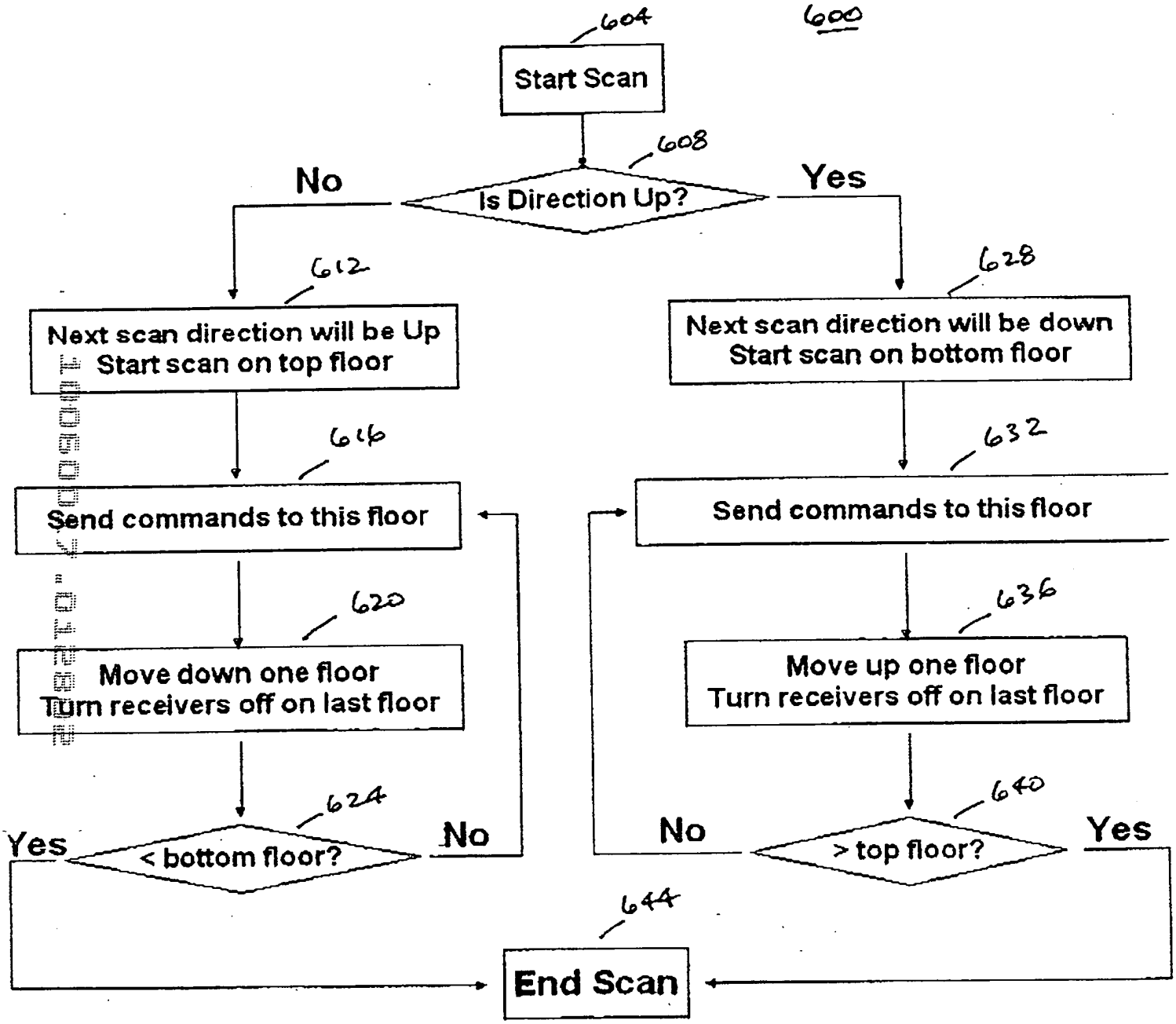


FIG. 10